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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/073,879      | 02/14/2002  | Yuki Nakajima        | 040356-0428         | 6750             |

22428 7590 09/24/2003

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WASHINGTON, DC 20007

EXAMINER

PHAM, LEDA T

ART UNIT PAPER NUMBER

2834

DATE MAILED: 09/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/073,879 | <b>Applicant(s)</b><br>NAKAJIMA ET AL. |  |
|                              | <b>Examiner</b><br>Leda T. Pham      | <b>Art Unit</b><br>2834                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2/14/02</u> . | 6) <input type="checkbox"/> Other:  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4 –6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In those claims, “the available battery output to be smaller” is unclear because it smaller than what? In claim 4, is it smaller than the higher required voltage of the battery? In claim 5, is it smaller than the lower state of charge of the battery? And is it smaller than the lower battery temperature in claim 6? The applicant should clearly explain and rewrite the claim in order for exam.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 5, 7 - 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kiuchi et al. (U.S. Patent No. 5,621,304).

Referring to claims 1, 8 and 9, Kiuchi teaches a control system for a vehicle (figure 1) comprising:

a generating device (17)

a battery (3)

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a motor electrically connected to the generating device and battery, which drives the vehicle (4)

and a controller (figure 1, 2) which functions to:

determine a running condition of the vehicle (7, 8, 9),

compute a target motor power, which is a target value of the power of the motor, based on the vehicle running condition (12),

compute an available output from the battery to the motor based on the target motor power (5),

compute a target generated power, which is a target value of the power generated by the generating device, based on the available battery output and target motor power (19),

and control the generating device based on the target generated power (20).

Referring to claim 2, Kiuchi teaches the control system wherein the generating device comprising an engine (16) and a generator (17) connected to the engine, and the controller further functions to control the rotation speed of the generator (sensor 27) and torque of the engine (26) based on the target generated power.

Referring to claim 3, Kiuchi teaches the control system wherein the controller further functions to compute a voltage required to obtain the target motor power, and compute the available battery output based on the required voltage (13, 14, 15).

Referring to claim 4, Kiuchi teaches the control system wherein the controller further function to compute the available battery output to be smaller, the higher the required voltage becomes (lines 22 – 59, column 7).

Referring to claim 5, Kiuchi teaches the control system further comprising a sensor (10, 11) which detects a state of charge of the battery, and the controller further functions to compute the available battery output to be smaller, the lower the state of charge of the battery becomes.

Referring to claim 7, Kiuchi teaches the control system wherein the controller further functions to compute a target battery output, which is a target value of the power output from the battery, to make the state of charge of the battery approach a target value, compute the target generated power by subtracting the target battery output from the target motor power when the target battery output is smaller than the available battery output, and compute the target generated power by subtracting the available battery output from the target motor power when the target battery output is larger than the available battery output (lines 22 – 33, column 7).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiuchi in view of Schmitz et al (U.S. Patent No. 6,573,675 B2).

Referring to claim 6, Kiuchi teaches the claimed invention except for the added limitation of the control system having a sensor which detects a temperature of the battery.

Schmitz teaches the control system further comprising a sensor (30', figure 1) for detecting a temperature of the battery.

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Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kiuchi's control system having a sensor as taught by Schmitz. Doing so would gauge the output temperature of the battery in the system.


*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leda T. Pham whose telephone number is (703) 305-4864. The examiner can normally be reached on M-F (7:30-5:00) first Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.

Leda T. Pham  
Examiner  
Art Unit 2834

  
KARL TAMAI  
PRIMARY EXAMINER

LTP  
September 10, 2003